

STN Search History

FILE 'HOME' ENTERED AT 09:44:28 ON 16 JUL 2003

L1 QUE (BACTERIOCIN OR LANTIBIOTIC OR NICIN) (P) (METAL OR TRANSITIONAL OR CO BALT OR CO#)

(FILE 'HOME' ENTERED AT 09:44:28 ON 16 JUL 2003)

INDEX 'ADISCTI, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI, BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO, CABA, CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB, DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 09:44:45 ON 16 JUL 2003

SEA (BACTERIOCIN OR LANTIBIOTIC OR NICIN) (P) (METAL OR TRANSIT

1* FILE ADISNEWS
SEA (BACTERIOCIN OR LANTIBIOTIC OR NICIN) (P) (METAL OR TRANSIT

1* FILE ADISNEWS
29 FILE AGRICOLA
2 FILE AQUASCI
10 FILE BIOBUSINESS
4* FILE BIOCOMMERCE
85 FILE BIOSIS
17* FILE BIOTECHABS
17* FILE BIOTECHDS
63* FILE BIOTECHNO
64 FILE CABA
4 FILE CANCERLIT
135 FILE CAPLUS
4* FILE CEABA-VTB
2* FILE CIN
4 FILE CROPU
1 FILE DDFB
1 FILE DDFU
1 FILE DRUGB
1 FILE DRUGNL
2 FILE DRUGU
56 FILE EMBASE
90* FILE ESBIOWEB
13* FILE FEDRIP
0* FILE FOMAD
0* FILE FOREGE
26* FILE FROSTI
82* FILE FSTA
22 FILE GENBANK
1 FILE HEALSAFE
14 FILE IFIPAT
6* FILE KOSMET
56 FILE LIFESCI
0* FILE MEDICONF
65 FILE MEDLINE
3* FILE NTIS
0* FILE NUTRACEUT
72* FILE PASCAL
0* FILE PHARMAML
4 FILE PHIN
6 FILE PROMT
67 FILE SCISEARCH
52 FILE TOXCENTER

73 FILE USPATFULL
3 FILE USPAT2
5 FILE VETU
17 FILE WPIDS
17 FILE WPINDEX
L1 QUE (BACTERIOCIN OR LANTIBIOTIC OR NICIN) (P) (METAL OR TRANSIT

FILE 'MEDLINE, CAPLUS, BIOSIS, BIOTECHNO, LIFESCI, EMBASE, SCISEARCH'
ENTERED AT 09:50:13 ON 16 JUL 2003

L2 527 S L1
L3 1 S L2 AND (NICIN OR LANTIBIOTIC) (L) (METAL OR COBALT)
L4 0 S L2 AND (NICIN OR LANTIBIOTIC) (S) (METAL OR COBALT)
L5 0 S L2 AND (NICIN OR LANTIBIOTIC) (S) (CHELAT#####)
L6 209 DUP REM L2 (318 DUPLICATES REMOVED)
L7 21 S L6 AND (NICIN OR LANTIBIOTIC)
L8 56 S L2 AND (METAL OR COBALT)
L9 21 S L8 AND L6
L10 1 S L9 AND L7
L11 40 S (L7 OR L9) NOT L10
L12 37 S L11 NOT PY>2002
L13 0 S (NICIN OR LANTIBIOTIC) (S) (METAL OR COBALT)

L12 ANSWER 2 OF 37 MEDLINE
TI Lantibiotics produced by lactic acid bacteria: structure, function and applications.
SO ANTONIE VAN LEEUWENHOEK, (2002 Aug) 82 (1-4) 165-85. Ref: 120
Journal code: 0372625. ISSN: 0003-6072.
AU Twomey Denis; Ross R P; Ryan Maire; Meaney Billy; Hill C

L12 ANSWER 6 OF 37 MEDLINE
TI Homing in on the role of transition metals in the HNH motif of colicin endonucleases.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1999 Sep 17) 274 (38) 27153-60.
Journal code: 2985121R. ISSN: 0021-9258.
AU Pommer A J; Kuhlmann U C; Cooper A; Hemmings A M; Moore G R; James R; Kleanthous C

L12 ANSWER 8 OF 37 MEDLINE
TI Biosynthesis of lantibiotic nisin. Posttranslational modification of its prepeptide occurs at a multimeric membrane-associated lanthionine synthetase complex.
SO JOURNAL OF BIOLOGICAL CHEMISTRY, (1996 May 24) 271 (21) 12294-301.
Journal code: 2985121R. ISSN: 0021-9258.
AU Siegers K; Heinzmann S; Entian K D

L12 ANSWER 11 OF 37 MEDLINE
TI Mode of action of the lanthionine-containing peptide antibiotics duramycin, duramycin B and C, and cinnamycin as indirect inhibitors of phospholipase A2.
SO BIOCHEMICAL PHARMACOLOGY, (1991 Oct 24) 42 (10) 2027-35.
Journal code: 0101032. ISSN: 0006-2952.
AU Marki F; Hanni E; Fredenhagen A; van Oostrum J

L12 ANSWER 18 OF 37 CAPLUS COPYRIGHT 2003 ACS
TI Molecular characterization of lantibiotic-synthesizing enzyme Epid reveals a function for bacterial Dfp proteins in coenzyme A biosynthesis
SO Journal of Biological Chemistry (2000), 275(41), 31838-31846
CODEN: JBCHA3; ISSN: 0021-9258
AU Kupke, Thomas; Uebele, Michael; Schmid, Dietmar; Jung, Gunther; Blaeser, Michael; Steinbacher, Stefan

L12 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2003 ACS
TI Isolation and characterization of lacticin 10790, a new bacteriocin produced by Lactococcus lactis subsp. cremoris KFCC 10790
SO Journal of Microbiology and Biotechnology (2000), 10(4), 539-543
CODEN: JOMBES; ISSN: 1017-7825
AU Joo, Nam Eok; Kim, Il-Han; Yoo, Jin-Young; Lee, Yong-Eok

L12 ANSWER 23 OF 37 CAPLUS COPYRIGHT 2003 ACS
TI Applications of nisin: a literature survey
SO Nisin Novel Lantibiotics, Proc. Int. Workshop Lantibiotics, 1st (1991), 434-9. Editor(s): Jung, Guenther; Sahl, Hans-Georg. Publisher: ESCOM, Leiden, Neth.
CODEN: 57TYA9
AU Molitor, Ernst; Sahl, Hans Georg

- L12 ANSWER 30 OF 37 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
TI Metal ion resistance of the bacteriocin producing
enterococci.
SO Asian-Australasian Journal of Animal Sciences, (1993) Vol. 6, No. 3, pp.
441-445.
ISSN: 1011-2367.
AU Laukova, A. (1); Kmet, V.
- L12 ANSWER 33 OF 37 LIFESCI COPYRIGHT 2003 CSA
TI Review: Bacteriocins of Lactic Acid Bacteria
SO Food Science and Technology International [Food Sci. Technol. Int.],
(20010800) vol. 7, no. 4, pp. 281-305.
ISSN: 1082-0132.
AU Cintas, L.M.; Casaus, M.P.; Herranz, C.; Nes, I.F.; Hernandez, P.E.
- L12 ANSWER 36 OF 37 SCISEARCH COPYRIGHT 2003 THOMSON ISI
TI MODE OF ACTION OF THE LANTHIONINE-CONTAINING PEPTIDE ANTIBIOTICS
DURAMYCIN, DURAMYCIN-B AND DURAMYCIN-C, AND CINNAMYCIN AS INDIRECT
INHIBITORS OF PHOSPHOLIPASE-A2
SO BIOCHEMICAL PHARMACOLOGY, (1991) Vol. 42, No. 10, pp. 2027-2035.
AU MARKI F (Reprint); HANNI E; FREDENHAGEN A; VANOOSTRUM J

L12 ANSWER 2 OF 37 MEDLINE
AN 2002612525 MEDLINE
DN 22256668 PubMed ID: 12369187
TI **Lantibiotics** produced by lactic acid bacteria: structure, function and applications.
AU Twomey Denis; Ross R P; Ryan Maire; Meaney Billy; Hill C
CS Department of Microbiology, University College Cork, Teagasc, Dairy Products Research Centre, Moorepark, Fermoy, Co. Cork, Ireland.
SO ANTONIE VAN LEEUWENHOEK, (2002 Aug) 82 (1-4) 165-85. Ref: 120
Journal code: 0372625. ISSN: 0003-6072.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LA English
FS Priority Journals
EM 200302
ED Entered STN: 20021010
Last Updated on STN: 20030214
Entered Medline: 20030212
AB **Lantibiotics** are a diverse group of heavily modified antimicrobial and/or signalling peptides produced by a wide range of bacteria, including a variety of lactic acid bacteria. Based on their diverse structures and mode of action, at least six separate **lantibiotic** subgroups can be suggested, but all subgroups are characterized by significant post-translational modifications, which include the formation of (beta-methyl)lanthionines, among other unusual alterations. These small peptides are produced, modified, exported, sensed and combated by a complex set of proteins encoded by (usually) co-ordinately regulated operons. In some instances, the production and immunity have been shown to be auto-regulated by the mature **lantibiotic**. Since their discovery, interest in **lantibiotics** has been fuelled by their obvious potential as food-grade antimicrobials to improve food safety and quality; a potential which, to date, has been realised only by the longest characterised molecule, nisin. In addition, these peptides are often mooted as alternatives to antibiotics for some biomedical applications. The purpose of this paper is to review recent developments in our understanding of **lantibiotic** structure, molecular genetics and applications for this unusual class of **bacteriocins**.

L12 ANSWER 12 OF 37 MEDLINE
AN 85174044 MEDLINE
DN 85174044 PubMed ID: 6532404
TI Physiological properties and plasmid content of *Bacteroides* spp.
AU Riley T V; Mee B J
SO AUSTRALIAN JOURNAL OF EXPERIMENTAL BIOLOGY AND MEDICAL SCIENCE, (1984 Dec) 62 (Pt 6) 717-26.
Journal code: 0416662. ISSN: 0004-945X.
CY Australia
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198505
ED Entered STN: 19900320
Last Updated on STN: 19900320
Entered Medline: 19850520
AB A collection of 50 clinical isolates of *Bacteroides* was examined for plasmid deoxyribonucleic acid content. An attempt was then made to

correlate the presence of plasmids with a specific phenotypic property. Of the 20 *Bacteroides* which contained plasmids, 18 were found to harbour plasmids of less than or equal to 9.8 megadaltons. The most common plasmid had a molecular weight of 4.8 megadaltons and was found in 9 strains. Most strains had multiple plasmid bands. All strains were examined for resistance to penicillin, cefoxitin, erythromycin, tetracycline, sulphamethoxazole, clindamycin, chloramphenicol, arsenate, silver, cadmium, mercury, chromium, lead, nickel and cobalt, and for the production of beta-lactamase, heparinase, deoxyribonuclease, haemolysins and **bacteriocins**. Using a Chi-squared analysis, there was no statistically significant correlation between any of these phenotypic traits and the presence of plasmids, except **bacteriocin** production. A total of 15 out of 20 (75%) of plasmid-containing strains produced **bacteriocins** while only 10 out of 30 (33%) of plasmid-free strains were capable of **bacteriocin** production (chi 2, p less than 0.005). Attempts to transfer or cure resistance to antibiotics and heavy metals or **bacteriocin** production were not successful.

L12 ANSWER 19 OF 37 CAPLUS COPYRIGHT 2003 ACS
AN 2000:714524 CAPLUS
DN 134:53580
TI Isolation and characterization of lacticin 10790, a new bacteriocin produced by *Lactococcus lactis* subsp. *cremoris* KFCC 10790
AU Joo, Nam Eok; Kim, Il-Han; Yoo, Jin-Young; Lee, Yong-Eok
CS Department of Chemistry and Biochemistry, Pai-Chai University, Taejon, 302-735, S. Korea
SO Journal of Microbiology and Biotechnology (2000), 10(4), 539-543
CODEN: JOMBES; ISSN: 1017-7825
PB Korean Society for Applied Microbiology
DT Journal
LA English
AB A new **bacteriocin**, named lacticin 10790, was purified from *Lactococcus lactis* subsp. *cremoris* KFCC 10790 by sequential adsorption, immobilized metal-affinity, cation-exchange, and C18 reverse-phase chromatogs. The mol. mass of the **bacteriocin** was estd. to be between 3,000 and 3,500 Da. Lacticin 10790 showed a broad antimicrobial spectrum against many gram-pos. bacteria. The **bacteriocin** was stable to heat and in the pH range between 2 and 6. Lacticin 10790 was destroyed by digestion with proteases and exhibited a bactericidal mode of action. An amino acid compn. anal. of purified lacticin 10790 revealed a high concn. of hydrophobic amino acids. The N terminus of the **bacteriocin** was found to be blocked, upon anal. by Edman degrdn. The results suggest that lacticin 10790 is a class I **bacteriocin**.
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ALL CITATIONS AVAILABLE IN THE RE FORMAT